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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/923,152	08/06/2001	Takuro Enomoto	450100-03407	1512
20999	7590	04/06/2006	EXAMINER	
FROMMER LAWRENCE & HAUG 745 FIFTH AVENUE- 10TH FL. NEW YORK, NY 10151			SHIBRU, HELEN	
			ART UNIT	PAPER NUMBER
			2621	

DATE MAILED: 04/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/923,152

Applicant(s)

ENOMOTO ET AL.

Examiner

HELEN SHIBRU

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 January 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 and 21-46 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 and 21-46 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 January 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Response to Amendment***

1. The amendments filed on 01/03/2006 have been entered and made of record. Claims 1-13 and 21-46 are pending and claims 14-20 are cancelled. In view of the Applicants' amendments to the drawings the objection to the drawing is hereby withdrawn.

***Response to Arguments***

2. Applicant's arguments filed on 01/03/2006 have been fully considered but they are not persuasive. See the new ground(s) of rejections set below.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-8, 10-12, 21-28, 30-32, 34-41, and 43-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Timmermans (US Pat. No. 5, 583,653) in view of Uchida et al (US Pat. No. 5,691,819).

Regarding claim 1, Timmermans discloses an information recording apparatus for recording information on a predetermined recording medium, said information recording apparatus comprising (see abstract):

creation means for creating search data from main image data (see col. 7 lines 37-45);  
and

recording means for recording said search data created by said creation means and said main image data on said recording medium (see col. 6 lines 3-7),

wherein said creation means creates first data by which an image can be displayed over one entire one screen (see col. 7 lines 37-50 and col. 23 lines 7-17), and second data for enhancing the image quality of said image displayed by said first data (see col. 6 lines 7-12, col. 7 lines 50-67, and col. 23 lines 7-17), each being used as said search data, and said recording means records said first data and said second data in a predetermined sequence (see col. 7 lines 8-14, col. 10 lines 23-35, and col. 28 lines 34-46).

Claim 1 differ from Timmermans in that the claim further requires the first data includes three macro blocks including a macro block such that discrete cosine components are extracted from a luminance signal of a discrete cosine transform block, a macro block such that discrete cosine components are extracted from a first color-difference signal of a discrete cosine transform block and a macro block such that discrete cosine components are extracted from a second color-difference signal of a discrete cosine transform block, and wherein the second data includes three macro blocks such that discrete cosine components are extracted from each of three luminance signals of a discrete cosine transform blocks.

In the same field of endeavor Uchida discloses the block data structure of a macro block in the 525/60 system (see fig. 3a and fig. 4a). The video signals input to the terminal 1 (in fig. 1) are component of a luminance signal Y, a color difference signal (R-Y) and a color difference signal (B-Y) (see col. 4 lines 31-42). Uchida further discloses generating synchronizing block data to store a main component of coded data of one macro block of video segment in one synchronizing block (see claim 1). Uchida further discloses the structure of the block data that is

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a macro block comprises four DCT blocks of the luminance signal, one DCT block of the first color difference signal, one DCT block of the second color difference signal (see col. 5 lines 1-21). Uchida further discloses the video image of one frame is divided in to a number of segments (see fig. 4a). Uchida further discloses the block data of a macro input to a terminal 90 (see fig. 1) is discrete-cosine transformed by the DCT circuit 91 in a manner that is well known in the art (see col. 7 lines 57-67). Uchida further discloses the low frequency components are incorporated with priority level and extracted from the three luminance signals of a discrete cosine transform blocks (see col. 8 lines 35-48). Uchida further discloses the three macro blocks are incorporated in the respective data areas of the video data in order to generate the coded data of the DCT block (see col. 8 lines 35-48). Therefore in light of the teaching in Uchida about DCT structures it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Timmermans by including generating coded data technique in order to store a main component of the coded data.

Regarding claim 2, Timmermans discloses recording means records said second data after said first data is recorded (see col. 28 lines 35-39).

Regarding claim 3, Timmermans discloses creation means creates each of said first data and said second data in such a manner so as to be divided into a plurality of portions in predetermined units (see col. 10 lines 36-41 and line 61-col. 11 line 28, and fig. 4).

Regarding claim 4, Timmermans discloses predetermined units are units of blocks in which error checking is performed (see col. 11 lines 1-13, col. 20 line 52-col. 21 line 13 and 53-col. 22 line 8).

Regarding claim 5, Timmermans discloses creation means creates said second data corresponding to the central portion of one screen of said image, and at least one piece of said second data corresponding to a portion which is outside the central portion (see fig. 26 and col.23 lines 7-17 and line 55-col. 24 line 17), and said recording means records a plurality of pieces of said second data in a sequence from the data corresponding to the central portion of one screen of said image to the data corresponding to a portion outside the central portion (see col. 24 line 54-col. 25 line 4).

Regarding claim 6, Timmermans discloses recording means records said first data in said predetermined units in such a manner as to be obtained by one trace during reading (see col. 21 lines 44-52 and col. 25 lines 31-57).

Regarding claim 7, Timmermans discloses search data is composed of image data and control data (see col. 7 lines 8-26), said control data has a packet structure in which a search header and subcode data which is the same as said main image data are written in such a manner so as to be divided (see col. 23 lines 17-31), and the packet header of said packet structure indicates which data is written in said control data (see fig. 19 and col. 20 line 52-col. 21 line 3).

Regarding claim 8, method claim 8 is rejected for the same reason as discussed in the apparatus claim 1 above.

Regarding claim 10, the limitation of claim 10 can be found in claim 1 above. It is Noted that Timmermans discloses an information reading apparatus for reading information recorded on a predetermined recording medium, said information reading apparatus comprising:

acquiring means for acquiring search data, which is composed of image data and control data, recorded on said recording medium (see col. 7 lines 8-26); and

display control means for controlling the display position of said image data on the basis of coordinate information contained in said control data (see col. 6 lines 56-65 and col. 7 lines 8-26).

Regarding claim 11, Timmermans discloses interpolation means for interpolating a display image by using said search data obtained by said acquiring means when said search data obtained by said acquiring means is less than the required amount of data for one screen of the display image (see col. 23 line 56-col. 24 line 17).

Regarding claim 12, method claim 12 is rejected for the same reason as discussed in the apparatus claim 10 above.

Regarding claim 21, the limitation of claim 21 can be found in claim 1 above. Claim 21 further requires the search data for nine traces of the recording medium are arranged across 144 tracks separated into four traces of first data and second data of five traces. Whether separating traces in different unit unless by doing so produces novel and/or unexpected results is merely considered as well known design options obvious to one of ordinary skill in the art because the construction of the apparatus provides no significant functional or patentable difference on the same token that separating traces would have not been patentable distinct from this Application and the reference.

Claims 22-27 are rejected for the same reason as discussed in claims 2-7 respectively above.

Claim 28 is rejected for the same reason as discussed in claim 21 above.

Regarding claims 30 and 32, the limitation of claims 30 and 32 can be found in claims 10 and 21. Therefore claims 30 and 32 are analyzed and rejected for the same reason as discussed in claims 10 and 21.

Regarding claim 31, Timmermans discloses interpolation means for interpolating a display image by using said search data obtained by said acquiring means when said search data obtained by said acquiring means is less than the required amount of data for one screen of the display image (see col. 3 line 36-col. 4 line 11, col. 12 lines 3-33, col. 23 line 31-col. 24 line 18).

Regarding claim 34, Timmermans discloses interpolation means for interpolating a display image by using said search data obtained by said acquiring means when said search data obtained by said acquiring means is less than the required amount of data for one screen of the display image (see col. 3 line 36-col. 4 line 11, col. 12 lines 3-33, col. 23 line 31-col. 24 line 18, col. 24 lines 44-53, and col. 27 lines 21-44).

Regarding claim 34, the limitation of claim 41 can be found in claim 1 above. It is Noted that claim 41 further requires a sync block of the recording medium includes macro blocks that correspond with the image displayed such that macro blocks of the first data are mapped to the display image, left to right, from an X address of a start macro block within the sync block and a Y address of the start macro block within the sync block of a sync block header, and wherein the sync block header includes a picture class ID to indicate whether the search data is first data or second data (see figures 3a, 4a, 10, 12 and col. 5 lines 1-21, col. 8 lines 16-61 in Uchida).

Claims 35-40 are rejected for the same reason as discussed in claims 2-7 above.

Claim 41 is rejected for the same reason as discussed in claim 34 above.



Regarding claims 43 and 45, the limitations of claims 43 and 45 can be found in claims 10 and 34. Therefore claim 43 and 45 are analyzed and rejected for the same reason as discussed in claims 10 and 34.

Claim 44 is rejected for the same reason as discussed in claim 31 above.

5. Claims 9 and 13, 29, 33, 42 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Timmermans in view of Uchida et al (US Pat. No. 5,691, 819) and further in view of Official Notice.

Regarding claims 9, 13, 29, 33, 42, and 46 the limitations in claims 9, 13, 29, 33, 42, and 46 can be found in the apparatus claims 1, 10, 21, and 31. However claims 9, 13, 29, 33, 42, and 46 further require a recording medium storing a computer readable program, and causing a computer for reading information on a predetermined recording medium to execute steps as claimed in claims 1, 10, 21, and 31. Official Notice is taken that it is well known in the art to embody inventions in software to be executed by a computer. Therefore, it would have been obvious to one of ordinary skill in the art to modify the teaching of Timmermans by having a record medium capable of being read by a computer tangibly embodying a program causing the computer to execute the steps of the apparatus claims 1, 10, 21, and 31. The motivation for having a recordable by a computer is that such a method can be easily enhanced and executed multiple times.

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Fujiwara et al. (US Pat. No. 5,646, 695).

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

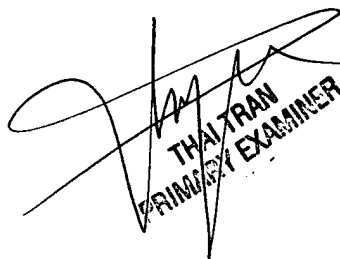
9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to HELEN SHIBRU whose telephone number is (571) 272-7329. The examiner can normally be reached on M-F, 8:30AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, THAI Q. TRAN can be reached on (571) 272-7382. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Helen Shibru  
March 25, 2006



THAI TRAN  
PRIMARY EXAMINER